1st Russia-Japan Joint Workshop on Composite Materials

Workshop Progam

Day 1(Oct 31)

Time	Title	Presenter	Affiliation
8:00	Bus from Korston Hotel to Moscow State Univ.		
8:30	**Registration**		
9:00	**Opening remarks** (**Prof. Lomakin** (Lomonosov Moscow State Univ.) and **Prof. Nishiyabu** (Kindai Univ., JCOM chair))		
9:15-9:55 (40min)	**Keynote Lecture 1 (Russia):** Nonlinear deformation effects of composite materials and their implementation into engineering practice	**Boris Fedulov**	Lomonosov Moscow State University
9:55-10:25 (30min)	**Keynote Lecture 2 (Japan):** In-situ high-resolution microscopic characterization on mode II fatigue delamination in CFRP laminates	**Masaki Hojo** (1), Yu Adachi (2), Aya Mamishin (1), Rikuo Somiya (1), Narumichi Sato (2), Naoki Matsuda (1), Masaaki Nishikawa (1), Manato Kanesaki (3)	(1) Dept. Mechanical Engineering and Science, Kyoto University, Japan (2) Toray Industries, Inc., Japan (3) Dept. System Engineering, Okayama Prefectural University, Japan
10:25-10:40	Break		
10:40-11:00	**Invited Speaker 1(Russia):** The Evaluation of Damage Tolerance Criteria for Composite Airframe	**Stanislav Dubinskii** (1), Yuri Feygenbaum (2)	(1) The Central Aerohydrodynamic Institute named after N.E. Zhukovsky (TsAGI) (2) The State Scientific Research Institute of Civil Aviation (GosNII GA)
11:00-11:20	**Invited Speaker 2(Russia):** Effect of the Component Properties on the Creep Life Prediction of Composites	**Khvostunkov K.A.**, Telicin D.P., Kiiko V.M., Korzhov V.P.	Faculty of Mechanics and Mathematics, Lomonosov Moscow State University
11:20-11:40	**Invited Speaker 3(Japan):** Multi joining technology for advanced thermoplastic composites manufacturing	**Daiki Tanabe** (1), Kazuaki Nishiyabu (2)	(1) Intelligent Mechanical Engineering, National Institute of Tech., Wakayama (2) Faculty of Science and Engineering, Kindai University
11:40-12:00	**Invited Speaker 4(Japan):** Approaches to damage modeling for advanced composite materials and structures based on peridynamics	**Masaaki Nishikawa**, Naoki Matsuda, Masaki Hojo	Department of Mechanical Engineering and Science, Kyoto University
12:00-13:00	Lunch		
13:00-13:40 (40min)	**Keynote Lecture 3 (Russia):** Anisogrid composite lattice structures for aerospace applications	**V. V. Vasiliev**, A.F. Razin	Central Research Institute for Special Machinery (CRISM)
13:40-14:20 (40min)	**Keynote Lecture 4 (Japan):** Challenges to the Improvements of Mechanical Capabilities of Lattice Structures	**Takahira Aoki** (1), Tomohiro Yokozeki (1), Atsushi Shitanaka (2) and Fukunin Tou	Department of Aeronautics and Astronautics, University of Tokyo
14:20-14:40	Break (Research introduction)		
14:40-15:20 (40min)	**Invited Lecture 1 (Russia):** Infrared Thermographic Nondestructive Testing of Composites: Short History, State-of-the-Art and Trends	**Vladimir P. Vavilov**	School of Nondestructive Testing, National Research Tomsk Polytechnic University
15:20-16:00 (40min)	**Invited Lecture 2 (Russia):** Applications of polymer composite materials in MC-21-300 project	**Anatoly Gaydanskiy**	General Director of JSC "AeroComposit"
16:00-16:10	Break		
16:10-16:30	**Invited Speaker 5(Russia):** Rubber-cord modeling: Moment Properties, Moderately Large Strains and Energy Loss	**S.V. Sheshenin**	Lomonosov Moscow State University, Faculty of Mechanics and Mathematics
16:30-16:50	**Invited Speaker 6(Japan):** Multiscale damage analysis of thin-ply composite laminates	**Ryo Higuchi**, Ryoma Aoki, Tomohiro Yokozeki	Department of Aeronautics and Astronautics. The University of Tokyo
16:50-17:10	**Student Speaker 1(Japan):** Effects of molecular weight of matrix resin on tensile and fiber/resin interfacial properties of continuous fiber reinforced composites with in-situ polymerized phenoxy resin	**Megumi SUZUKI** (1), Masafumi MIYATA (1), Masahito FUJIMOTO (1), Kazuya ETO (2), Tetsuya SUGIYAMA (2), Akihiro NISHINO (2), Toshiaki MIYANAGA (2), Atsushi HOSOI (1),(3), Hiroyuki KAWADA (1),(3)	(1) School of Fundamental Science and Engineering, Waseda University (2) NIPPON STEEL Chemical & Material Co., Ltd. (3) Kagami Memorial Research Institute for Materials Science and Technology, Waseda University
17:10-17:30	**Student Speaker 2(Japan):** The effect of nano-structured surface of aluminum alloy directly bonded to CFRTP on fatigue delamination growth	**Kei SAITO** (1), Kristine Munk JESPERSEN (2), Hiroki OTA (1), Keita WADA (1), Kazuki OKAMOTO (1), Atsushi HOSOI (3),(4),(5) and Hiroyuki KAWADA (3),(4),(5)	(1) Department of Applied Mechanics, Waseda University (2) Kanagawa Institute of Industrial Science and Technology (3) Department of Applied Mechanics and Aerospace Engineering, Waseda University (4) Department of Materials Science, Waseda University (5) Kagami Memorial Research Institute for Materials Science and Technology, Waseda University
17:30-17:50	**Invited Speaker 7(Russia):** Simulation of porous two-phase media	**Igor Faskheev**	Faculty of Mechanics and Mathematics, Lomonosov Moscow State University
17:50-18:10	**Invited Speaker 8(Japan):** Ply curving termination: suppressing delamination in composite ply drop-off	**Shu Minakuchi**, Nobuo Takeda	The Graduate School of Engineering, Department of Aeronautics and Astronautics, The University of Tokyo
18:45	To the workshop dinner		
19:30-21:30	**Workshop dinner (Guest Speaker: T. Fukui, KURIMOTO)**		
22:00	To Korston Hotel Moscow		

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Day 2(Nov 1)

Time	Title	Presenter	Affiliation
7:00	Bus from Korston Hotel to Moscow State Univ.		
7:45	**Registration**		
8:00-8:20	**Student Speaker 3(Russia):** Multiscale modeling of viscous flow in a porous medium	**Evgenii Sharaborin**, Aslan Kasimov	Center for Design, Manufacturing and Materials Skolkovo Institute of Science and Technology
8:20-8:40	**Student Speaker 4(Russia):** Determination of parameters values in the models of microstructure evolution under superplastic deformation conditions	**T.A. Beliakova**, I.A. Goncharov	Faculty of Mechanics and Mathematics, Lomonosov Moscow State University
8:40-9:00	**Student Speaker 5(Russia):** Determination of the averaged characteristics of periodic elastic frames	**E.D.Martynova**	Faculty of Mechanics and Mathematics, Lomonosov Moscow State University
9:00-9:20	**Invited Speaker 9(Russia):** Dilatancy Effect in Solid Mechanics	**Sakharov A.N.**	Faculty of Mechanics and Mathematics, Lomonosov Moscow State University
9:20-9:40	**Invited Speaker 10(Japan):** Effect of Cellulose Nano Fiber Addition on Fatigue Properties of Carbon Fiber Reinforced Plastics	**Kiyotaka OBUNAI** (1), Kazuya OKUBO (2) and Kenta HAYASHI (1)	(1) Faculty of Science and Engineering, Doshisha University (2) Graduate School of Science and Engineering, Doshisha University
9:40-10:00	**Invited Speaker 11(Japan):** Estimation of R-curve for mode II interlaminar fracture toughness from tensile strength of CFRP laminates with fiber discontinuities	**H. Nakatani**, T. Warabino, and K. Osaka	Department of Mechanical & Physical Engineering, Osaka City University
10:00-10:20	**Invited Speaker 12(Japan):** Development of Tsunami shelter structure using green composites	**Junji Noda**, Taisei Yamanaka and Takahiro Miyamoto	Faculty of biology-oriented science and technology, Kindai University
10:20-10:30	Break		
10:30-11:00 (30min)	**Invited Lecture 3(Russia):** Anisoprinting - Design and Manufacturing of New Generation Composite Structures	**Aleksey Khaziev**	Chief Researcher, Anisoprint
11:00-11:30 (30min)	**Invited Lecture 4(Russia):** Structural and Topology Optimization of 3D Printed Composite Parts	**Tatiana Latysheva**	Anisoprint
11:30-11:40	Break		
11:40-12:00	**Invited Speaker 13(Japan):** Characterizations and Applications of Nanocarbon Materials for Electromagnetic Shielding	**Qing-Qing Ni**, Hong Xia	Dept of Mechanical Engineering & Robotics, Shinshu University
12:00-12:20	**Student Speaker 6(Japan):** Twist measurements under tensile loading for anti-symmetric CFRP laminates	**Yuko Kataie** (1), Junji Noda (2), Satoshi Bando (2)	(1) Graduate school of biology-oriented science and technology, Kindai University (2) Faculty of biology-oriented science and technology, Kindai University
12:20-12:40	**Student Speaker 7(Japan):** Selection of synthesis conditions for improving mechanical properties of untwisted CNT yarn	**Naruki HISAJI** (1), Kazuyoshi SOGO (1), Kouichi OKUMO (1), Kazuhiko TAKAHASHI (2) , Keiichi SHIRASU (3), Atsushi HOSOI (1),(4) and Hiroyuki KAWADA (1),(4)	(1) School of Fundamental Science and Engineering, Waseda University (2) Toyota Motor Corporation (3) Fracture and Reliability Research Institute, Tohoku University (Now at National Institute for Materials Science) (4) Kagami Memorial Research Institute for Materials Science and Technology, Waseda University
12:40-13:00	**Student Speaker 8(Japan):** Experimental evaluation of formability in preforming process using CFRTP preforms	**Y. Abo** (1), Y. Tanaka (1), M. Nishikawa (1), M. Iwashita (2), K. Yamada (2), K. Kawabe (2), M. Nishi (3), N. Matsuda (1), M. Hojo (1)	(1) Department of Mechanical Engineering and Science, Kyoto University (2) Industrial Technology Center of Fukui Prefecture (3) JSOL Corporation
13:00	**Closing Remark**		
13:15	Bus to the technical tour		

Technical tour (Skolkovo Innovation Center)

14:00	Lunch		
15:00	**Welcome talk**	Fedor Antonov	CEO, anisoprint
	Anisoprinting technology presentation		
	3D printer Composer A4 demonstration		
17:00	**Closing remark of technical tour**		
17:30	Bus to Korston Hotel Moscow		

Optional event(Social dinner fee is not included in the registration fee)

18:30	**Social dinner in Korston Hotel Moscow**